IN THE CLAIMS

1. (Original) An assay method comprising:

providing a sample that is suspected of containing a target;

providing a sensor that can bind to the target in an alcoholic preservative solution, said sensor conjugated to a chromophore;

contacting the sample with the sensor in the alcoholic preservative solution under conditions in which the sensor can bind to the target, if present;

applying a light source to the solution that can excite the chromophore; and

detecting whether light is emitted from the target.

2. (Original) The method of claim 1, wherein the sample is selected from the group consisting of blood; urine; semen; milk; sputum; mucus; plueral fluid; pelvic fluid; sinovial fluid; ascites fluid; a body cavity wash; eye brushing; skin scrapings; a buccal swab; a vaginal swab; a pap smear; a rectal swab; an aspirate; a needle biopsy; a section of tissue; plasma; serum; spinal fluid; lymph fluid; an external secretion of the skin, respiratory, intestinal, or genitourinary tract; tears; saliva; a tumor; an organ; a microbial culture; and an *in vitro* cell culture constituent.

3. (Original) The method of claim 1, wherein the sensor comprises an aptamer.

4. (Original) The method of claim 1, wherein the sensor comprises a polynucleotide.

5. (Original) The method of claim 1, wherein the sensor comprises a peptide nucleic acid.

6. (Original) The method of claim 1, wherein the sensor comprises a locked nucleic acid.

7. (Original) The method of claim 1, wherein the sample is contacted with a plurality of different sensors, each of said plurality comprising a corresponding different detectable label, wherein each of said plurality can selectively bind to a corresponding different target.

8. (Original) The method of claim 1, wherein the chromophore is a fluorophore.

9. (Original) The method of claim 8, wherein the fluorophore is selected from a semiconductor nanocrystal, a fluorescent dye, and a lanthanide chelate.

10. (Original) The method of claim 9, wherein the fluorophore is a semiconductor nanocrystal.

11. (Original) The method of claim 9, wherein the fluorophore is a fluorescent dye.

12. (Original) The method of claim 11, wherein the fluorescent dye is fluorescein.

13. (Original) The method of claim 9, wherein the fluorophore is a lanthanide chelate.

14. (Original) The method of claim 1, wherein the target is DNA.

15. (Original) The method of claim 1, wherein the target is RNA.

16. (Original) The method of claim 1, wherein said sample is a cellular fraction.

17. (Original) The method of claim 1, wherein the target is centrosomal.

18. (Currently Amended) The method of claim 1, wherein said target is a pathological organism or component or product thereof.

19. (Currently Amended) The method of claim 1, wherein said target is a virus or component or product thereof.

20. (Original) The method of claim 1, further comprising comparing a result from said detecting

to a result obtained from a control sample.

21. (Original) The method of claim 20, where the control sample is a positive control.

22. (Original) The method of claim 20, where the control sample is a negative control.

23. (Original) The method of claim 1, further comprising washing said sample prior to said detecting.

24. (Original) The method of claim 1, wherein the sensor is conjugated to a detectable moiety.

25. (Original) The method of claim 1, wherein the sensor is itself detectable.

26. (Original) The method of claim 1, wherein the method is automated.

27. (Original) The method of claim 1, wherein the method is performed manually.

28. (Original) A method for identifying a sensor which specifically binds to a desired target, comprising:

contacting a sample suspected of containing a target of interest with a detectable sensor, wherein said contacting takes place in a preservative solution comprising an amount of one or more water-soluble alcohols effective to preserve such solution against at least one contaminant; and

detecting whether said sensor has bound to said target.

29. (Original) The method of claim 28, wherein the method is performed on a plurality of candidate sensors.

30. (Original) A preserved sensing solution comprising:

a water-soluble alcohol in an amount effective to preserve the sterility of the solution toward at least one contaminant in the presence of a sample;

a buffer solution;

an anti-clumping agent; and

a detectable sensor that can bind specifically to a target suspected of being in the sample when the sample is contacted with the alcohol-containing solution.

31. (Original) The solution of claim 30 wherein said alcohol is selected from the group consisting of ethanol, isopropanol, and methanol.

32. (Original) The solution of claim 30 wherein said alcohol is methanol.

33. (Original) The solution of claim 30 wherein said anti-clumping agent is a chelating agent selected from the group consisting of ethylenediamine tetraacetic acid and salts thereof.

34. (Original) The solution of claim 30 wherein said buffering agent is selected from the group consisting of phosphate buffered saline, Tris buffer, sodium acetate, ethylenediamine tetraacetic acid, ethylenediamine tetraacetic acid salts, citric aid and citric acid salts.

35. (Original) The solution of claim 30 wherein said buffering agent is sodium acetate.

36. (New) The method of claim 1, wherein said target is a bacterium or component or product thereof.

37. (New) The method of claim 1, wherein said target is a yeast or component or product thereof.